

REMARKS

By the present amendment, claim 1 has been amended to obviate the examiner's objections thereto and/or to further clarify the concepts of the present invention. Support for one of the amendments to claim 1 may be found on lines 1-2 of page five of the subject specification. In addition, claims 9-10 have been added. Newly added independent claim 9 claims the subject matter presently deleted from claim 1. Entry of these amendments is respectfully requested.

In the Office Action dated April 3, 2003, claim 1 was objected to as containing an apparent typographical error. As can be noted from the amendments to claim 1 herein, the numerical range has been corrected to be "0 to 89.9%."

In the same Office Action, claims 1 and 6 were rejected under 35 USC § 102(b) as being anticipated by the previously applied patent to Hoebeke. In making this rejection, it was asserted that the cited patent teaches a composition having the recited molecular weight which is obtained from polymerizing (1) methyl methacrylate and (4) a (meth)acrylate having an oxygen atom in addition to an ester bond in conjunction with (3) an organic peroxide having a t-butyl peroxy group. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

Before discussing the rejections in detail, a brief review of the presently claimed

invention may be quite instructive. An important feature of the claimed processing aid as defined by claim 1 is that the aid is obtained by polymerizing a mixture containing a (meth)acrylate having an oxygen atom in addition to an ester bond in the presence of an organic peroxide having a tertiary-butyl peroxy group as a polymerization initiator. It has been found that only when such a (meth)acrylate is polymerized with such a polymerization initiator can a thermoplastic resin composition containing the obtained processing aid be obtained which has an excellent peeling property from a metal surface at a high temperature. It is submitted that such a processing aid for a thermoplastic resin is not taught or suggested by the cited patent to Hoebeke.

More particularly, it is submitted that the Hoebeke patent does not teach that an organic peroxide having a tertiary-butyl peroxy group is used in polymerization as presently claimed. In addition, the Hoebeke patent does not teach that a mixture comprising a (meth)acrylate having an oxygen atom in addition to an ester bond is polymerized in the presence of an organic peroxide having a tertiary-butyl peroxy group as a polymerization initiator as presently claimed.

It is submitted that these differences are significant. In support thereof, attention is directed to Examples 8, 27 to 29 and Comparative Examples 12 to 14 of the present specification. From a comparison of the Examples to the Comparative Examples, it is demonstrated that a thermoplastic resin composition containing the processing aid obtained by polymerizing mixture comprising a (meth)acrylate having an oxygen atom in

addition to an ester bond therewith, in the presence of an organic peroxide having a tertiary-butyl peroxy group, has an excellent peeling property from a metal surface at a high temperature. Further, the compositions according to the Hoebeke patent do not intend to improve the peeling property from a metal surface at a high temperature and such an effect is not taught or suggested in the Hoebeke patent.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 102(b) and allowance of claims 1 and 6 over the cited Hoebeke patent are respectfully requested.

Claims 1, 3 and 6 were rejected under 35 USC § 102(b) as being anticipated by the previously applied patent to Tugukuni et al. In making this rejection, it was asserted that the cited patent teaches a composition having the recited molecular weight which is obtained from polymerizing (1) methyl methacrylate and (4) a (meth)acrylate having an oxygen atom in addition to an ester bond in conjunction with (2) a mercaptan for use as a chain transfer agent and (3) t-butyl peroxide. Reconsideration of the rejection in view of the above claim amendments and the following comments is respectfully requested.

It is submitted that the Tugukuni patent does not teach or suggest the processing aid as defined in independent claims 1 or 9. As to the former claim, the Tugukuni patent teaches that an organic peroxide having a tertiary-butyl peroxy group is used in polymerization. However, the Tugukuni patent does not teach polymerizing a mixture comprising a (meth)acrylate having an oxygen atom in addition to an ester bond in the

presence of an organic peroxide having a tertiary-butyl peroxy group as a polymerization initiator as defined by claim 1.

As to the latter claim, a feature of the processing aid as recited therein is that the processing aid is obtained by polymerizing a mixture comprising a meth(acrylate) having an oxygen atom in addition to an ester bond therewith in the presence of a mercaptan having an alkyl ester as a chain transfer agent. It is submitted that a processing aid having these features, among others, is not taught nor suggested by the cited patent to Tugukuni.

Among other things, the Tugukuni patent does not teach a mercaptan having an alkyl ester group. The chain transfer agent in claim 9 is a mercaptan having an alkyl ester group, for example, tertiary-butyl thioglycolate, 2-ethylhexyl thioglycolate according to page 6, lines 23-25 of the present specification. The alkyl mercaptan described in the Tugukuni patent, for example, n-dodecyl mercaptan, has no ester group. Therefore, it is submitted that the presently claimed invention differs from the Tugukuni patent in this important respect regarding the mercaptan chain transfer agent, that is, the patent does not teach the use of a mercaptan having an alkyl ester group.

In support of the significance of this difference, attention is directed to Examples 8, 23 to 26 and Comparative Examples 7 to 10, From the comparison of the Examples to the Comparative Examples, it is demonstrated that a thermoplastic resin composition containing the processing aid obtained by using a mercaptan having an alkyl ester group

has an excellent peeling property from a metal surface at a high temperature.


For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 102(b) and allowance of claims 1, 3 and 6 over the cited Tugukuni patent are respectfully requested.

In view of the foregoing, it is submitted that the subject application is now in condition for allowance and early notice to that effect is earnestly solicited.

In the event this paper is not timely filed, the undersigned hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 01-2340, along with any other additional fees which may be required with respect to this paper.

Respectfully submitted,

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